

### Abstract of the Disclosure

An on-DRAM termination resistance control circuit is capable of controlling resistance of an IC termination and  
5 minimizing area for the resistance control circuit by using a simplified circuit scheme. The on-DRAM termination resistance control circuit includes a push-up resistance adjusting unit, a pull-down resistance adjusting unit and resistance adjustment control unit. The push-up resistance adjusting  
10 unit adjusts resistances of a first and a second inner resistors based on an external reference resistor. The pull-down resistance adjusting unit adjusts a resistance of a third resistor based on the second inner resistor that is adjusted by adjustment of the push-up resistance control unit. The  
15 resistance adjustment control unit controls to alternatively repeat the operation of the push-up resistance adjusting unit and the pull-down resistance adjusting unit for a predetermined number of adjustment times.